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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/849,579	05/20/2004	Gerald C. DiPiazza	Tyco.005	6347

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Tyco Technology Resources
Suite 140
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EXAMINER

STEPHEN, EMEM O

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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03/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/849,579	Applicant(s) DIPIAZZA, GERALD C.	
	Examiner EMEM STEPHEN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-22 is/are allowed.
- 6) ☒ Claim(s) 23-26 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/06/2009 has been entered.

Response to Arguments

2. Applicant's arguments with respect to the claims 23-26 and 28 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

3. Claims 1, 3-22 are allowed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claim 23** is rejected under 35 U.S.C. 103(a) as being unpatentable over US pub. No. 2006/0108181 A1 to Bacellar et al. in view of US Pat. No. 5,118,134 to Mattes et al.

Regarding claim 23, Bacellar discloses a communication system comprising a first communication module (modules 15,16 on a first level) mountable to a side of a building; and a second communication module (15,16 on a different level) mountable to the side of the building on a different level of the building (see fig. 1) and the second communication module is configured to: receive radio signals from and transmit radio signals to the first communication module the radio signal originating from an elevation different than the communication module (pars. 28-29); and transmit the radio signal into the building(par. 28 lines 13-15, i.e. machine room has a controller 18 with module 19, par. 29 line 9, car 31), the radio signal propagated at least one substantially upward and substantially downward (par. 29 line 16, and par. 34). However, Williams fails to disclose a second communication module using an outward facing array of the communication module, the radio signal propagated at least one substantially upward and substantially downward along an outside surface of the building; and transmit the

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radio signals into the building using an inward facing array of the communication module.

Mattes disclose transmitter 32/receiver 33 or transceiver 34 for transmitting and outward ray (col. 4 lines 15-24). The placement of the transmitter 32/transceiver 34 and the direction of communication determine where the array faces, for example, If the transmitter is placed outside a wall and communicates with another transceiver in a different elevation it communicates downward or upward.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Bacellar, and have the radio signal such that the radio waves communicating the radio signal propagate at least one of substantially upward along an outside of the building as disclosed by Mattes for the purpose of transmitting it through to the communication modules.

7. **Claim 24** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bacellar in view of Mattes, and further in view of Yarkosky, and further in view of Takatori.

Regarding claim 24, the combination of Bacellar and Mattes discloses the apparatus and method of claim 23, however, the combination fails to disclose wherein the radio signal carries at least one of an up-converted mobile communication signal, an up-converted and an down-converted legacy wireless communication signal.

In a similar endeavor, Yarkosky discloses wherein the radio signal carries at least one of an up-converted mobile communication signal, an up-converted and a down-

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converted legacy wireless communication signal (col. 6 lines 42-48, down convert and up convert downlink signal).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination, and have the radio signal carries at least one of an up-converted mobile communication signal, an up-converted and an down-converted legacy wireless communication signal as taught by Yarkosky for the purpose of using compatible communication signal in communication.

However, the combination fails to disclose a millimeter wave radio signal. Takatori discloses a millimeter wave radio signal (col. 2 lines 54-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination, and have a millimeter wave radio signal as taught by Takatori for the purpose of increasing transfer speed of wireless communication (col. 2 lines 1-14).

8. **Claim 25** is rejected under 35 U.S.C. 103(a) as being unpatentable over U S Pat. 6202799 B1 to Drop in view of U S Pub. 2004/0198386 A1 to Dupray.

Regarding claim 25, Drop discloses a method comprising: receiving at a first communication module (transponder 21 on floor 16) a radio signal transmitted from a second communication module (transponder 21 on floor 17), wherein the first and second communication module are mounted to the side of a building at different elevations(see figure 2), encoding the radio signal with a predetermined code based on the elevation from which the signal was transmitted (col. 2 lines 50-51) and transmitting

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the radio signal into the building based on the predetermined code such that the communication flow of the radio signal between different elevations is determined based on the predetermined code (see fig. 2, claim 19, transponders 22 is located inside the elevator are interconnected with transponders 21, and a dispatching controller 23 located inside the building 15).

However, Drop fails to disclose services priorities.

Dupray discloses services priorities (pars. 38, 620, 652, and 672).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Drop, and have the signal encoded with services priorities as disclosed by Dupray for the purpose of using the encoded signal in determining the classification of a message signal.

9. **Claims 26, and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Drop in view of Dupray, and further in view of Yarkosky, and further in view of Takatori.

Regarding claims 26, and 28, the combination of O'Neill and Dupray discloses the apparatus and method of claim 25, wherein the signal includes an indication of a floor of the building from which the signal was transmitted (Dupray, pars. 30, 92, 236, and 349), however, the combination fails to disclose wherein the radio signal carries at least one of an up-converted mobile communication signal, an up-converted and an down-converted legacy wireless communication signal.

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In a similar endeavor, Yarkosky discloses wherein the radio signal carries at least one of an up-converted mobile communication signal, an up-converted and a down-converted legacy wireless communication signal (col. 6 lines 42-48, down convert and up convert downlink signal).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination, and have the radio signal carries at least one of an up-converted mobile communication signal, an up-converted and an down-converted legacy wireless communication signal as taught by Yarkosky for the purpose of transmission through a building.

However, O'Neil, Dupray and Yarkosky fail to disclose a millimeter wave radio signal.

Takatori discloses a millimeter wave radio signal (col. 2 lines 54-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination, and have a millimeter wave radio signal as taught by Takatori for the purpose of increasing transfer speed of wireless communication.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Pat 7,034, 683 B2 to Ghazarian

US Pat. 6,104, 513 to Bloom

US Pat. 5,838, 258 to Saar

US Pat. 5946622 to Bojeryd

US pat. 5815114 to Speasl et al

US pat. 5812086 to Bertiger et al.

US Pat 5801643 to Willaims et al.

US Pat 4823367 to Kreutfeld

US pat. 5572195 to Heller et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMEM STEPHEN whose telephone number is 571 272 8129. The examiner can normally be reached on 8-5 Mon-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571 272 7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617